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Erosive Life Calculator for Production Choke Valves on Offshore Platforms to Prevent Catastrophic Failure

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Session Abstract:

Production choke valves on offshore oil and gas production platforms are critical piece of equipment. If the choke valves are not operated and maintained properly, it can fail catastrophically due to erosion, posing high safety risk to personnel and equipment. Various safety systems are often utilized to make sure that there is no catastrophic failure. These systems can be very complex and expensive.

Alternatively, certain choke valve designs can have inherent characteristics that help in early detection of trim erosion. Choke valves of this design, can be used as an early warning before a catastrophic failure. The percent stroke opening of the choke valve, together with flow data, can be used for this purpose. These choke designs, which uses few components, can serve as a simple, yet effective, preventive maintenance mechanism to avoid catastrophic hardware failure on offshore platforms.